High Altitude Monkey (HAM) Project: HAM Robot Puppet

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Concept:

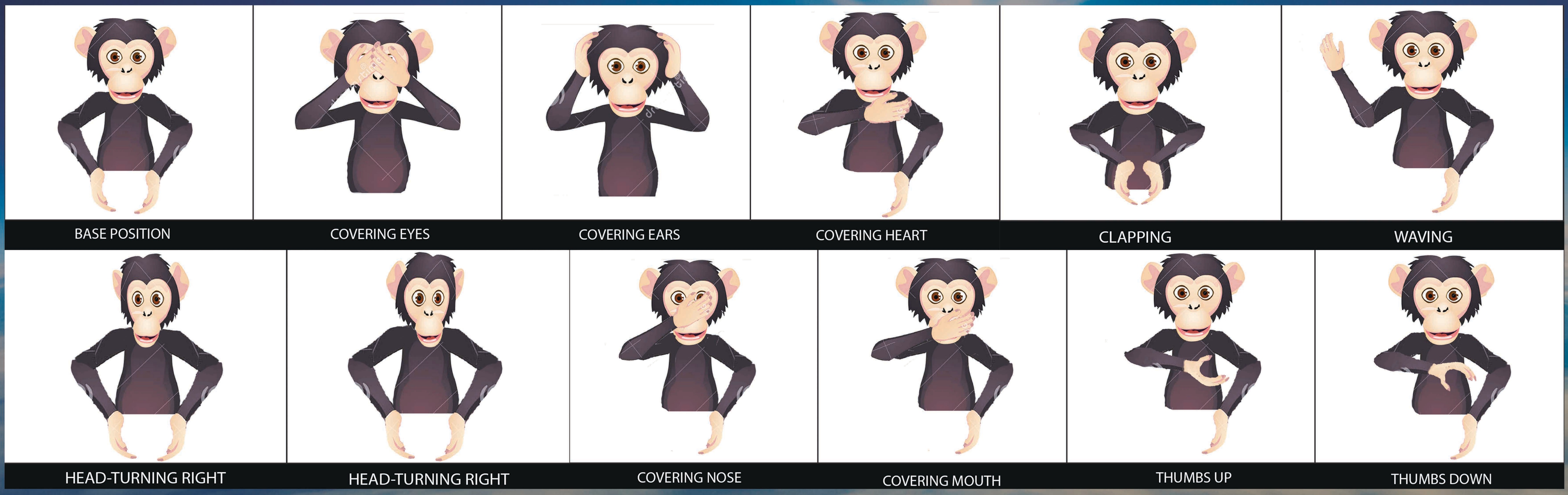
A collaboration with the CT Discovery Museum and UB to create an interactive exhibit for young students to learn about near space. A capsule containing a robotic puppet (HAM the monkey) will interact with students on the ground, with gestures, as to how he is doing up in the air. The project also draws influence from NASA's HAM project from the 1960's when they sent a live monkey into near space.

HAM Logo concept

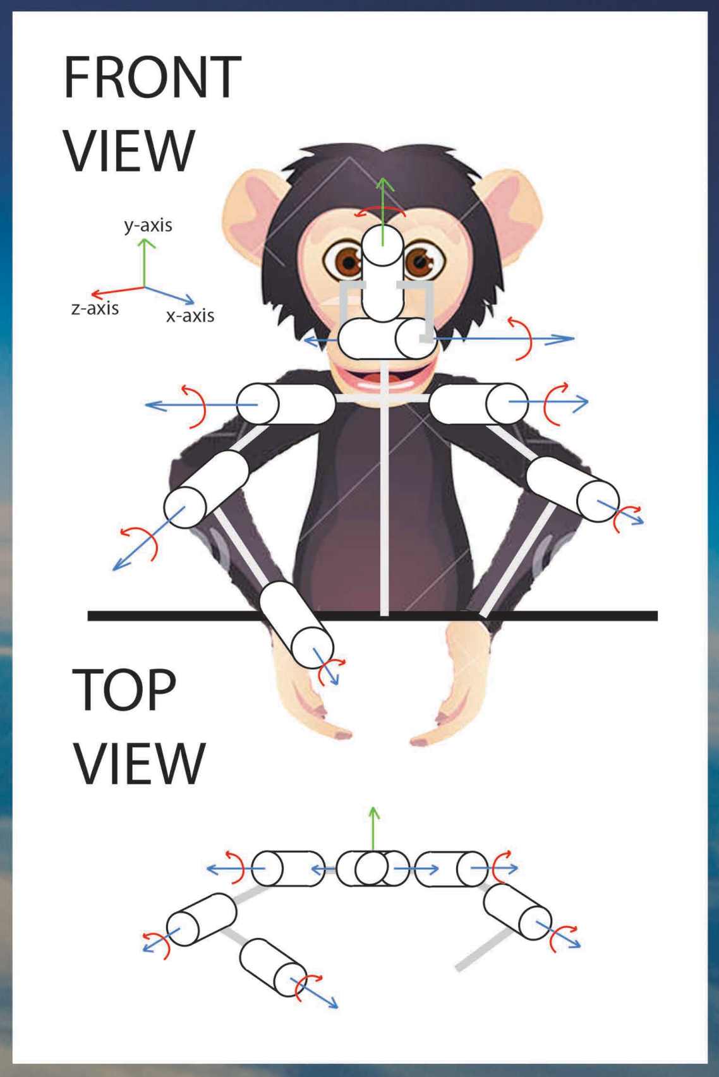
Schematics:

During the ideation phase, I worked closely with Dr. Jani Pallis to illustrate a variety of possible movements that the puppet could perform. Keeping in mind the limitations of the motors of the robot, the motions were still refelctive of how an actual chimp moves it's limbs.

Set of motions



Example with motors

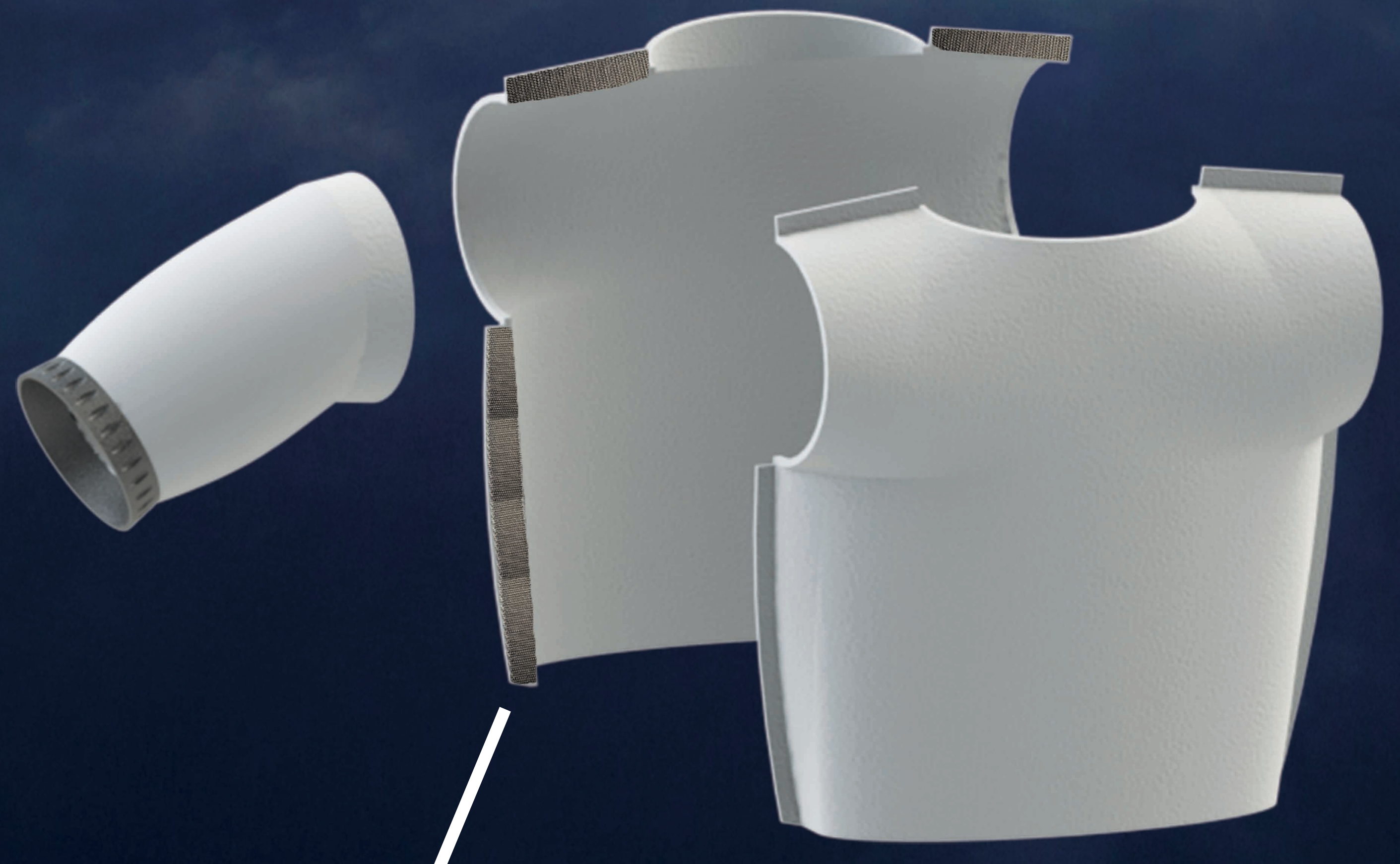


Suit Design:

Along with hair to help cover the robotic innards of the puppet, a space suit for HAM was also planned. Taking inspiration from what the orignal HAM wore in the 1960's this suit allows for easy removal if adjustments have to be made within the puppet itself.

Inspiration:

Concept Suit Design:



Sleeves slide up the arms before the vest is applied

Velcro straps allow for easy removability and durable grip

Render with stuffed monkey